BIG COAST GUNS MAKE NEW RECORD

Sandy Hook Artillerymen Beat the World in Big-Gun Fire.

SIX HITS IN SEVEN SHOTS

Scored on Moving Target Six Miles Out at Sea—All Seven Shots Fired in Four Minutes and Twenty-one Seconds.

New York.—They did a reassuring thing with their big guns at Sandy Hook the other day, reassuring for any people of this city who may be disturbed from time to time by the periodic outbursts of the army critics who think that the Coast artillery doesn't know how to shoot. On the contrary they shoot so well that on the day in question they broke the world's record for big-gun fire on a range of over ten thousand yards. Seven shots were fired and six hits scored with a 12-inch gun playing on a moving target something over six miles away, 11,120 yards to be exact.

The target was a floating pyramid 12 feet square at the base and 15 feet high, a mere dot on the surface of the sea to the gunners at Fort Hancock. And yet so accurately did they locate the dot and gauge the motion through the water that had the flimsy pyramid target been a battleship, six of those 7,000-pound projectiles would have torn through her engine room. There were not only six hits, but they were bunched hits. And all seven shots were fired in 4 minutes and 32 seconds. Furthermore, the target was two or three miles farther away than a ship would be before she could get into the channel that would enable her to come up within hitting distance of the city.

The Men Who Did It.

The artillerymen who made this record were the members of the Forty-eighth company, Lieut. Marcellus H. Thompson commanding. Of course, shooting 12-inch guns so they will hit something is their regular job, but that particular day's work did attract some attention. (One hit in seven at 10,000 yards or over is considered good shooting.) Thompson says his men did it, and the men say Thompson did it. The silence of a 12-inch gun immediately before and after is as impressive as its roar.

But the supreme instant of its silence is when it gets up to speak. It has been so well fed—1,046 pounds of steel and 268 pounds of nitrocellulose—this chief speaker at a party that is a sort of international entertainment for a visiting fleet. Lieutenant Thompson, toastmaster, in a word of army lingo and a gesture, makes the introduction. Somebody releases a metal tooth that had locked and held another metal tooth, and the 52 tons of gun gets up above the parapet, rises 20 feet into the air without a sound as its lead counterweight sinks as silently 20 feet down into the emplacement. Then, the speech to the audience on the horizon!

Lieutenant Thompson dodges compliments and congratulations by explaining how the record shooting of his company never would have been possible but for the long years of hard work and training of the Coast artillery corps as a whole under the direction of General Murray and General Weaver.

Fuss About Missed Shots.

The men of the Firty-eighth company fuss more about the one shot that missed than the six that hit. They explain apologetically that at the instant the range for the fifth shot (the one that missed) came over the wire from the plotting room the gun was fired and the man at the time-range board did not hear accurately. He got the second or third figure beyond the decimal point wrong, and that made the next shot fall a trifle short. But the very next shot not only came within the limits of a battleship's vitals but demolished the pyramid target itself.

Before thinking that they must have been very careless on that lost shot, try to visualize and "audibilize" what goes on in the emplacement and the range-finding station when they are firing big guns. Remember that they fire every half-minute, that a thousand and one things must be done to the gun between shots, and that with a moving target each firing involves a brand-new problem involving a mass of hifalutin higher mathematics. Also that you have to know the answer to each of these problems in 30 seconds.

For each gun there are 15 men in the range section or position-finding service, and they must all agree on the result, and what they do must be supplemented by the 42 men who serve the gun itself. There can be no hitch. A blunder of one sort will lose a shot. A blunder of another sort will destroy a gun and scatter the fragments of half a hundred human bodies up and down the beach.

Again, only 30 seconds in which to do all those tremendous things accurately! Teamwork, if ever there was such a thing! You can't say that the brains of the thing are here or there. They are everywhere, one great composite brain.

How They Do It.

The beginning of each operation is in the base-line observation stations, two observatories 2,600 yards apart on the beach. In each of them a man is observing the moving battleship through a powerful glass; the intersection of the crossed hairs in the glass is in line with the vessel's smokestack and constantly kept there by moving the glass. Bells ring simultaneously in both these stations on the twenty-eighth, twenty-ninth and thirtieth second of each observation. On the third bell both observers read the angles on the scale and telephone those findings to the men at the plotting board, a big semicircular table, equipped with swinging brass arms to be moved across the board to give angles and distances.

That plotting room in firing time sounds very much like the old-fashioned schoolroom when the awful hour came for oral arithmetic.

Only in the plotting room they throw in a lot of decimals, and one man takes up the problem at the instant it falls from the lips of the one ahead of him, and they not only have to think but use a lot of mathematical instruments at the same time. And when you think you have the answer, that is only the beginning. That is merely the uncorrected range.

More figures are to tumble into the situation as fast as a man can talk, several men rather. The wind is blowing and something must be allowed for that, three-tenths of a degree, say, for an eight-mile breeze. A man at the wind-measuring table must figure that out and contribute his bit. Don't forget the tide. With reference to the beach, where the gun is, the vessel on the sea, there is a decimal or so higher or lower for every shot. Somebody figures that out. The ship is moving over her course. Somebody else must work on that trifle to see by what hundredth part of a degree the travel of the target affects the problem.

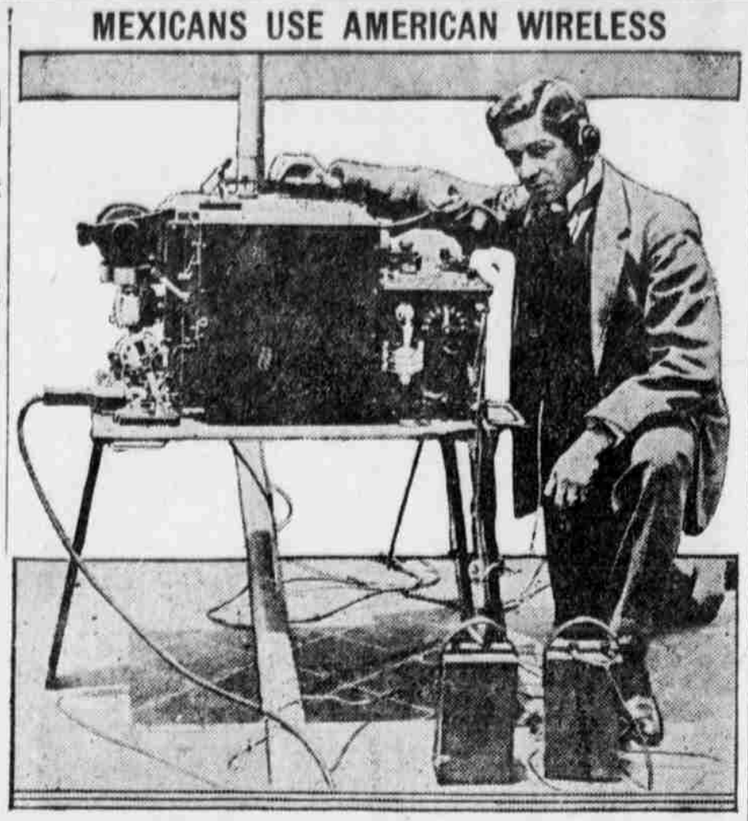
All in Half a Minute.

Then the shot itself, in a journey of six miles, is going to deviate some from a straight line. Answer to that, please. So all these things are called out to the man at the range board, who must co-ordinate them and correct the first answer. This, too, is all done in 30 seconds. And by the time the gun has been fired and loaded the observers and the plotters have done the thing all over again and flash the next range to the men at the gun.

Then there is muzzle velocity, which is never twice alike from two lots of powder. So the coast artillerymen blend their powder by hand, taking grains from different cans (a grain of nitrocellulose is about the size of a spool of thread) till they get the mixture they like, make a trial shot with that to see what muzzle velocity it gives, and then figure on the factor remaining the same so long as the same blend is used through one period of target practice. Of course, after a little while a change in the weather or temperature will upset that calculation, and another blend has to be made.

And after all this care in blending powder, all this precision in the mathematics of the thing, there comes in the gun pointer, not the man behind the gun, but the man crouched alongside it on his narrow, shelflike platform, with his eye on the target, too, and his hand on the delicate mechanism that in the last instant must be correct to a hair's breadth if the shot is going home.

MEXICANS USE AMERICAN WIRELESS



One of the five American "de Forest" portable wireless outfits being used by the Mexican government. The photograph shows a Mexican operating the machine. The apparatus can be put together or demounted in a few minutes.

ORGANIZE FIRST MOTHERS' POLICE

Women of New York's East Side Form Force to Regulate District.

PROTECTION FOR THE GIRLS

Principal Crusade Will Be Waged Against Cadet System and Modern Dress and Movie Theater Evils Will Be Fought.

New York.—What is said to be the first mother police force in the history of the world has been organized on the lower East side of New York city. The primary purpose of the organization, which is composed exclusively of mothers of the district, is the protection of young girls. To this end it will make war on extremes in modern day dress, wage a campaign against that type of dance and movie hall regularly known as the cadet, and keep open house at all times for the young girl in need of advice.

As side lines of endeavor, the women police will keep a look out for false weights and tricky scales in trade shops, instruct immigrants in the requisites of good citizenship, keep watch on the public parks to prevent waste paper, litter and other forms of desecration, and generally aim at the upbuilding of community life.

The "mother police" is the idea of Harry H. Schlacht, a young attorney, who started the boy police movement, which has spread through the country with such rapidity the past few years. It was from the operation of his boy police force that Mr. Schlacht received his inspiration for the organization of this new department.

The "juvenile cops," as the boys styled themselves, were denied entrance to dance halls and were looked upon with disfavor at many moving picture theaters—or in general in fields of endeavor fruitful for the cadet. The young attorney talked the situation over with a number of mothers of the East side and 100 of them volunteered to lend their aid in the formation of an organization to abate the cadet evil. Mr. Schlacht assumed active charge of the membership campaign and already has succeeded in enrolling more than 5,000 applications from mothers who want to lend their support to the movement. The head of the force is Mrs. Rose Kelhoffer, a strong, aggressive woman upon whose shoulders rests considerable responsibility. She has declared herself for the removal of "blinds" for disreputable houses, dance halls, moving picture houses and vaudeville houses, the prosecution of cigar stores selling cigarettes to minors, the throwing of inflammable refuse into fire escapes, supervision of immigrant girl employment and other reforms.

Mrs. Rose Kelhoffer, Chief.

Every member of the force will be equipped with a police whistle and instructed to summon a regular policeman to her assistance at the first show of trouble. Wherever it is necessary the women will be directed to make arrests on their own initiative, under authority of the law. A number of the women have volunteered to act as supervisors of the "play streets" recently opened by the police, in addition to their regular duties. These enlistments are counted on to work wonders in the way of juvenile reform, as well as to reduce the percentage of deaths from traffic accidents.

CHICKENS RUNNING AT LARGE

Unlimited Range Is Nuisance When Fowls Are Given Privilege of Stables, Sheds, Etc.

Unlimited range has its advantages, but if unlimited range means that the fowls have the privileges of the stables, wagon sheds and roosting on the wheels and machinery, then the unlimited range is a nuisance. To give

Feeding Unconfined Flock.

poultry plenty of room does not imply that the fowls should go where they please. A hen has no place in a stable any more than a cow has the right in a poultry house. Little by little the droppings accumulate during the season until everything is too filthy to handle, and the work of cleaning will be more than the real value of the fowls. Keep poultry away from other stock.

GUINEAS AS SUMMER LAYERS

Egg Is About Two-Thirds as Large as That of Chicken—Has Decidedly Better Flavor.

There are two different breeds of guineas, the white and the pearl. Both breeds are excellent summer layers, and the eggs are of superior quality. The guinea egg is about two-thirds as large as the hen egg, and has a decidedly better flavor. The guinea hen begins to lay as soon as the weather gets warm in the spring. If they are well fed during the winter they will begin to lay earlier than if they are only half fed through the winter.

If there are as many male birds in the flock as there are hens they will

Pearl Guinea.

mate off in pairs, but if only a few male birds are kept several hens will mate with one male and all or nearly all of them will lay in the same nest. Most guinea raisers recommend keeping one male bird for every five hens; we kept only two male birds with 20 hens last year and the eggs hatched as well as they did when we kept more males. The fewer male birds that are kept in the flock, the less quarrelsome they are.

HEN IS THE BIGGEST EATER

Fowl Turns Out More Food, According to Weight, Than Best Dairy Cow—Marvel of Efficiency.

The hen is the biggest eater of all domestic animals. A three and one-half pound hen, according to Doctor Rice of Cornell, will eat 110 pounds of food in a year. She will lay 30 pounds of eggs, or perhaps more. Eggs are highly concentrated food, and the hen that transforms a hundred pounds of bran, grass, grain and gravel, and other scraps into one-third their weight of fresh eggs, is a marvel of efficiency. The hen therefore turns out more food, according to her weight, than the best dairy cow.

TO BREAK HENS FROM SITTING

Wait Until She Gets Well Settled Then Place Her in Open Coop—Soon Forgets Desire.

To break a hen from sitting let her sit a day or two until she gets well settled, then put her, preferably with two or more other hens, into an open coop in full view of the poultry yard, where she can see her free sisters scratching around enjoying themselves. Hens are jealous creatures and a sitting hen placed in such a position and well fed, soon forgets her desire to sit, and when given her freedom on the morning of the fourth or fifth day she will happily resume the duties of her life.

In Woman's Realm

Of All Articles of Clothing, the Tailored Costume Should Be Chosen With the Utmost Care, for Obvious Reasons—Dainty Things Innumerable Are Offered at This Time for Wear in the Morning.

The tailored suit is of perennial interest, for it is much the same and must reach the same standards in all walks of life. Nothing that women wear meets so many critical eyes, and women step down and up to a common level when they wear correct street clothes. Therefore the tailored suit is to be most carefully selected.

Wherever else she may be forced to practice economy every woman should give as much as she can for good material and good style in her tailored suits. Thanks to manufacturers there are ready-made suits of moderate price that command the respect of the most discriminating of women. The most effective suits follow current modes with so much reserve that they are not out of date with the passing of a single season. This is especially true of the materials of which the best tailored suits are made.

Effective Tailored Suit.

The suit shown here is an excellent example of a standard suit, made of black and white checked material, which is never out of fashion. The skirt is plain and rather full and flares sufficiently to be in the mode. The coat is plain cut, with an easy adjustment to the figure, which is always smart, and has a full peplum and wide belt of the material. Patch pockets, odd band cuffs, and high plain collar depend upon neat machine-stitching and bone buttons for an always correct tailored finish. The buttons are white, bordered with a rim of black.

White washable gloves, black and white shoes, and a tailored hat faced with black belong in the company of this model suit. They complete the equipment of the wearer for the happenings of the day.

There are many dainty jackets designed for morning wear that go to no great lengths to make themselves attractive. They are, in fact, brief little garments whose story is soon told. But they are as sure of pleasing the eye and the good taste of women as is the wild rose. Here is one of them, made of the very palest shade of pink, in cotton voile, with a narrow satin stripe running through it. Scattered over the surface of the cloth, the smallest of roses, about as big as a pencil-head, are set in equally diminutive leaves. The roses are in pink, deepening to the American Beauty shade.

This is about the simplest of all morning jackets and it doesn't take much calculation on the part of the least calculating woman to convince her that its cost is next to nothing. It only takes about three yards of voile a yard wide to make the body and sleeves. Any other sheer fabric will answer the purpose as well as voile, and there are numberless cotton weaves, including challie, organdie, lawn, batiste, mull and crepe, that are printed with all sorts of flower patterns.

The jacket pictured is plain with long shoulder seams and three-quarter length sleeves. It is cut to hang straight from the shoulders, and gathered in at the waistline by a ribbon run through a casing. The casing is made by stitching a strip of the material to the under side of the jacket. The neck is trimmed to a V shape at the front and finished with a narrow facing, and the sleeves are faced also. All the seams are felled.

Trim and Neat for Breakfast Time.

A row of val lace insertion and edging trims the bottom, having the edging whipped to the insertion with a little fullness, to form a scant frill.

A wide collar and cuffs of white organdie are finished with lace in the same way, and they are basted to the neck and sleeves as a finish to the jacket. Collar and cuff sets are bought ready made and may be had for so low a price that it is hardly worth while to make them. The jacket fastens at the throat with a snap fastener.

Julia Bottomley